

alphabetical index to vernacular and their corresponding scientific names. The three islands represent an area of 860 square kilometers, or about 332 square miles, and possess a flora of 394 species distributed among 80 families from Polypodiaceae to Compositae. Those families predominating, as shown by the number of species recorded, are Leguminosae (41), Gramineae (35), Convolvulaceae (25), Euphorbiaceae (24), Cyperaceae (23), and Compositae (20). One new species is described in each of the following genera: *Schizachyrium*, *Ficus*, *Pisonia*, *Kallstroemia*, *Bursera*, *Phyllanthus*, *Croton*, *Maytenus*, *Condalea*, *Casearia*, and *Melampodium*.—J. M. GREENMAN.

Applied botany.—KRAEMER⁴ has accomplished a very laborious task for the benefit of students in technical schools, pharmaceutical and medical colleges, food analysts, etc. Although emphasizing the technical side of plants, he has included a basis of morphology and physiology, which should put the student, interested chiefly in the commercial aspect of plants, in touch with the scientific aspect. The seven chapters include the following subjects: Principal groups of plants, under which is given an outline of the plant kingdom; Cell contents and forms of cells; Outer and inner morphology of the higher plants; Botanical nomenclature, which is also a glossary of technical terms; Classification of angiosperms yielding economic products; Classification of medicinal plants; and Microscopic technique of reagents.

The book is a thesaurus of information, and as a book of reference should be of great service to botanists in general.—J.M.C.

North American flora.—The first part of volume 34 presents 50 genera of the Helenieae, all but 2 of them by RYDBERG.⁵ The new genera proposed are *Nesothamnus* (type species, *Perityle incana*), *Leptopharynx* (type species, *Perityle Parryi*), *Pappothrix* (type species, *Laphamia rupestris*), *Amauriopsis* (type species, *Amauria dissecta*), *Cephalobembix* (type species, *Schkuhria neomexicana*), *Trichymenia* (type species, *Hymenothrix Wrightii*). New species are described also in *Venegazia*, *Psilostrophe* (3), *Baileya* (3), *Perityle* (5), *Laphamia* (2), *Loxothysanus*, *Bahia* (2), *Hulsea* (3), *Tetracarpum* (2), *Hymenopappus* (5), *Othake* (2), *Rigiopappus*, and *Chaenactis* (3).—J. M. C.

NOTES FOR STUDENTS

Toxic effects.—The observation that small traces of salicylic acid (o-oxybenzoic acid) in the presence of comparatively large quantities of p-oxybenzoic acid have a deleterious effect on the growth of *Penicillium*, while both p-oxybenzoic and m-oxybenzoic acids serve as food, has led BOESEKEN and

⁴ KRAEMER, HENRY, Applied and economic botany. 8vo. vi+806. figs. 424. Philadelphia (145 N. 10th St.): Published by the author. 1914. \$5.00.

⁵ North American Flora 34: part 1. pp. 80. Carduaceae (Helenieae), by P. A. RYDBERG; *Baeria* and *Lasthenia*, by H. M. HALL. New York Botanical Garden, 1914.